

IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A process for the exothermic generation of syngas by the partial oxidation of a hydrocarbon-containing fuel comprising:

(i) reacting the hydrocarbon-containing fuel with an oxygen containing gas in a first reactor to produce the syngas and byproducts comprising CO₂, H₂O and soot;

(ii) introducing the syngas and byproducts into a second reactor containing a non-carbonaceous material that traps the soot for a sufficient time such that the majority of the byproduct soot is gasified via reaction with the byproduct CO₂ and/or H₂O to produce a syngas stream that is depleted in the soot; and,

(iii) operating the second reactor at a steady state to maintain a substantially constant amount of soot trapped therein as the rate at which soot is gasified in the second reactor substantially equals the rate at which soot is trapped.

2. (Currently Amended) The process of Claim 1 which further comprises:

~~(iii)~~ (iv) recovering a portion of the heat from the soot depleted syngas stream and using at least a portion of the recovered heat to facilitate the additional production of syngas via the (endothermic) catalytic reforming of natural gas and steam.

3. (Original) The process of Claim 1 wherein substantially all of the byproduct soot is gasified in step (ii).

4. (Original) The process of Claim 1 wherein the non-carbonaceous material comprises alumina.

5. (Original) The process of Claim 1 wherein the non-carbonaceous material contained in the second reactor is in the form of spherical particles.

6. (Original) The process of Claim 1 wherein the non-carbonaceous material contained in the second reactor is in the form of rings.
7. (Original) The process of Claim 1 wherein the non-carbonaceous material contained in the second reactor has a catalytic functionality to facilitate the gasification of the soot.
8. (Original) The process of Claim 1 wherein first and second reactors are operated in a temperature range from 2100F to 2800F.
9. (Original) The process of Claim 1 wherein a fluid is added to the syngas and byproducts produced by the first reactor prior to introducing the syngas and byproducts into the second reactor.
- 10-18. (Cancelled)